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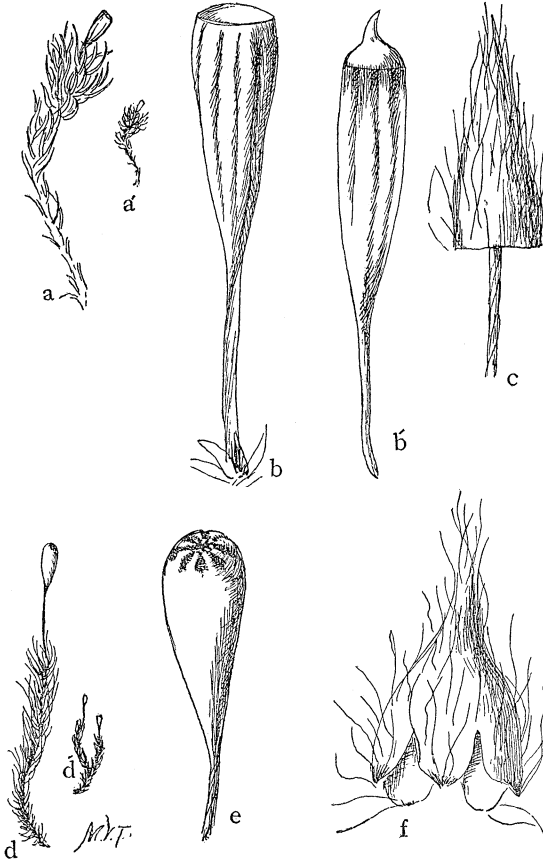
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WEISSIA.*

By A. J. GROUT.

THE Weissias have the characteristic brownish-green or blackish-green color of the Grimmiaceae family. They are distinguished from all save Orthotrichum by the hairy calyptra.

Both Orthotrichum and Weissia grow on the bark of trees or more rarely on rocks, in cushions of varying size and thickness.



DESCRIPTION OF FIGURES. a, a', *Weissia ulophylla* $\times 4$ and $\times 1$ respectively. b, b', Capsules of the same $\times 20$. c, Young sporophyte with calyptra $\times 20$. d, d', *Weissia coarctata* $\times 4$ and $\times 1$ respectively. e, Capsule $\times 20$. f, Calyptra of mature capsule $\times 21$.

The Weissias growing on trees usually grow in more rounded tufts with the leaves more crisped when dry than is usual with Orthotrichum growing in similar situations. The books all say that the hairs on the calyptra of Weissia are flexuous, and those on Orthotrichum straight, but this distinction appears to be rather too fine for the amateur to profit by it. The capsules in both genera are erect and symmetric and quite regularly striate when dry with eight or sixteen ridges and as many alternating furrows. These ridges consist of cells larger, darker, and thicker-walled than the alternating tissue. The seta in Orthotrichum is so short that the capsule is nearly always partially immersed; in Weissia the seta is long enough to exsert the capsule entirely beyond the perichæatial leaves.

Orthotrichum is a very large and difficult genus, and cannot be successfully treated in a book of this kind. Weissia is a small genus whose species are easily recognizable without any lens whatever.

The Puckered Weissia has pear-shaped capsules, abruptly narrowed to the very small mouth; the ridges and furrows extend only a short distance around the mouth of the capsule, giving it the peculiar and characteristic appearance shown in the cut.

The capsules of the Crisped Weissia have a much larger mouth and are striate for the entire length. The seta is shorter, the color is lighter, and the tufts are rather thicker than in the Puckered Weissia. In a not uncommon variety of the Crisped Weissia the capsule is much shorter and is suddenly contracted into a neck, narrow and much twisted when dry. These two species grow exclusively on trees; the third, the American Weissia, grows exclusively on rocks. Its leaves are rigid when dry like those of Orthotrichum, not crisped as in the two tree-growing species; the capsules very closely resemble those of the Crisped Weissia.

All three of the Weissias are common in the hilly regions of our range. They mature their capsules in autumn or early winter, but apart from the calyptra are more characteristic when dry and empty. The tree-growing species furnish good collecting for winter and early spring, when most other mosses are buried under the snow.

WEISSIA EHRH. = Ulota Mohr.

The Puckered Weissia = *W. coarctata* (Beauv.) Lindb. = *Ulota Ludwigii* Brid.

The Crisped W. = *W. ulophylla* Ehrh. = *Ulota crispa* Brid.
variety = *W. ulophylla crispula* (Bruch) Hammar
= *Ulota crispula* Brid.

The American Weissia = *W. Americana* (Beauv.) Lindb. = *Ulota Hutchinsæ* Schimp.

*From "Mosses With a Hand-lens," by permission.
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